



A political ecology of scaling: Struggles over power, land and authority



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ABSTRACT

This paper integrates insights from political ecology with a politics of scaling to discuss the construction and transformation of scalar topographies as part of the politics and power dynamics of natural resource management. The paper details two case studies from Community Based Natural Resource Management in the forest and wildlife sectors of Tanzania to: (1) analyse the devolution of power from the state to the local level; and (2) investigate the constant renegotiations and scalar transformations by actors across multiple levels in attempts to manipulate the governance system. The paper highlights the sociospatial aspects of the struggles and politics of natural resource management, and emphasises that whilst these processes of scalar negotiation and struggle are distinct between the two examples, they both revolve around the same political struggle over power. This indicates an important structuration element of power and scale as they are shaped by both the structural configuration of power within each sector alongside the agency of different actors across multiple levels.

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1. Introduction

For over thirty years, Community-Based Natural Resource Management (CBNRM) strategies have focused on bringing local people into decision-making about the natural world, channelling benefits from different uses of the environment to these people, and incentivising sustainable management of natural resources (Adams and Hulme, 2001a,b). CBNRM became the “darling of funding agencies” (Shackleton et al., 2010: 2) but mixed results, unexpected outcomes and a degree of disillusionment have followed (Büscher and Dressler, 2007; Hutton et al., 2005). This area of research has moved beyond concerns with purely the financial benefits amassed through CBNRM to recognise the imperative importance of considering power dynamics and the complexities of natural resource governance with a focus on issues of rights, equity and justice (Shackleton et al., 2010). This has been a popular area of research within political ecology, which has sought particularly to untangle the politics and complexities of CBNRM in reality, centred on “the politics of struggles over the control of, and access to natural resources” (Jones, 2006: 483).

At the very core of CBNRM is the devolution of power to the local level for natural resource management, and a large body of literature has been devoted to understanding the ways in which power is devolved, the restrictions placed upon this devolution

and the realities of community level management (see Dressler et al., 2010; McShane et al., 2011; Frost and Bond, 2008; Murombedzi, 1999; Fabricius et al., 2004). Importantly, key research areas that have emerged from this body of literature include the micro-politics of the local level, particularly with reference to the distribution of power and benefits from CBNRM, and the socio-political-economic context of power devolution in CBNRM (Sikor and Nguyen, 2007). There is a politics not just to what powers are devolved in CBNRM, but also to how these powers are taken up at the local level and integrated into an existing landscape of natural resource management, local governance and the power systems that these both involve.

This paper adopts a scalar perspective, focusing on the scalar configurations produced by CBNRM, and the processes of struggle taking place around these, to add depth of insight into the politics and power dynamics within two examples of CBNRM in Tanzania. I argue that this scalar perspective makes an important contribution by considering how the power dynamics of CBNRM are socio-spatial. Partly, this is valuable through acknowledging that CBNRM is essentially scalar and, additionally, a scalar analysis helps to add new depth and reveal hidden politics of CBNRM. These are evident through the scale-related politics that emerge through the patterns of winners and losers produced through the configurations in place in CBNRM, and, also, the strategies (including scalar practices) and political agendas pursued by actors to maintain, reconfigure and resist these configurations. By focusing on the struggles taking place within CBNRM, the examples discussed here also contribute to our thinking around scale by examining how power dynamics

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are both shaped by and, in turn, shape CBNRM scales (the structuration of scale as discussed by Smith, 1992). As I go on to discuss, a political ecology of scaling lens does hold potential for anticipating conflict and struggles within natural resource management. However, it is also important to acknowledge that scale is not the only or the key explanation of the complexities of CBNRM, and that it should sit alongside the contribution made by literatures such as elite capture, actor-network theory and institutional analyses, which all contribute to illuminating the politics and power dynamic of natural resource management (see also Zulu, 2009).

A defining element of the scale literature is the idea that space is socially constructed, and scales are created through the compartmentalisation of this space according to power systems (Lefebvre, 1974; Brenner, 2001). This view defines scales as “hierarchies of socioeconomic organisation” (Neumann, 2009: 400). Comprising more than spatial extent, scales are spaces of human–environment interaction in which processes take place, and they constitute geographies of power, representing both the socio-political identity of actors and the organisational structures in which these actors operate (Brenner, 2001). According to Marston (2000: 221), a general acceptance of the socially constructed nature of scale has provided three widely-agreed essential features; firstly that scale is not an external fact or ontological given, but “a way of framing conceptions of reality”; second that the construction of these scalar frames is not a rhetorical act, but is “tangible and ha[s] material consequence[s]” in everyday life and social structures; finally it is widely agreed that these framings of reality are not accepted and stable, but actively contested, often contradictory and under constant re-organisation. I use these three features of scale to explore the scalar politics within CBNRM in Tanzania, investigating the non-containerised nature of scales, the power dynamics introduced by scalar configurations in CBNRM, and the ways in which actors are involved in re-shaping this scalar landscape, re-scaling power within CBNRM governance and forging new links between levels, creating what Neumann (2009: 404) refers to as “new relational socioenvironmental spatialities”.

Scale has long been a central theme of enquiry across human geography, and is recognised as potentially making an important contribution to political ecology by contributing to analyses that weave together socio-ecological processes and by placing power at the centre of the dynamics shaping access to and control over environmental resources and space (see Neumann, 2009; Zimmerer, 2000). The utility of integrating political ecology and scalar perspectives lies in adding to our understanding of the workings of power and its realities in CBNRM: political ecology speaks to scalar theory in terms of the politics and power struggles within multi-level environmental governance particularly in the context of neoliberalisation (which tends to hide socio-ecological politics and spatial aspects), whilst scalar analysis can assist political ecologists in gaining further explanatory power into the realities of environmental governance (Swyngedouw and Heynen, 2003).

Political ecology's CBNRM literature has done much to highlight that the complexities of community conservation are socio-political, and to set a clear agenda for an examination of power. This agenda, however, needs to be more explicitly connected to the scale literature (Zulu, 2009; Neumann, 2009). If we accept that the complexities of CBNRM are socio-political, and the need for examination of the workings of power, then the socio-spatial aspects of power are fundamental to this, leading Bryant and Bailey (1997) to argue that the two core themes in political ecology are power and scale.

CBNRM is essentially scalar; through the re-definition of state–society relations, shifting power geometries between the national and local levels, simultaneous re-scaling of governance to the local

and global levels (Bulkeley, 2005; Purcell and Brown, 2005), and re-definition of natural resource governance, altering perceptions and understandings of resources across different levels of governance (see Purcell and Brown, 2005), CBNRM modifies existing and produces new scalar configurations, re-ordering social space in line with modified systems of power and redefining ecological space in terms of natural resource management. These socio-spatial aspects of power, involving hierarchisation and re-hierarchisation amongst spatial units (Brenner, 2001) remain critically lacking in our examination of CBNRM, and it is to this gap that this paper is orientated.

2. The politics of scaling

“Sociospatial processes change the importance and role of certain geographical scales, reassert the importance of others and, on occasion, create entirely new scales... The continuous reorganisation of spatial scales is an integral part of social strategies to combat and defend control over limited resources and/or a struggle for empowerment”

[Swyngedouw and Heynen, 2003: 913]

Scale is a sociospatial expression of power (see also Leitner and Miller, 2007), and the differentiation of space is infused with power relations and processes of political struggle (Zulu, 2009). Scales are not fixed, therefore, but are spaces of constant conflict and re-shaping, and power relations are at the heart of creating and re-creating the scalar configuration.

The fluid nature of scales and their constant construction and reorganisation has become a major theme and point of critique of early studies (Marston et al., 2005; Smith, 1990). Smith (1992: 74) made a crucial contribution to the theorisation of scale when he argued that “the scale of struggle and the struggle over scale are two sides of the same coin”, calling for a structuration element to scalar theory in which structure and agency are mutually constitutive “with agents enacting and transforming structures through their actions and structures enabling and constraining human actions” (Leitner and Miller, 2007: 118). Fraser (2010: 335), similarly considers the strategies employed by actors using the term ‘scalecraft’, involving “skills in negotiating spaces of engagement” to consider how scales do not represent things in themselves with inherent qualities, but rather strategies that are pursued by (and benefit) social groups with particular spatial and environmental agendas” (Purcell and Brown, 2005: 279). Scales are, therefore, both socially constructed and continually negotiated around that structure. Scalar outcomes are not just the result of the characteristics of the scalar configuration itself, but are also shaped by the priorities and actions of those empowered by such scalar arrangements (Zulu, 2009; Purcell and Brown, 2005). Here, I focus specifically on how human agency is spatialized to examine how CBNRM projects take place and evolve in reality.

A politics of scaling, examines “situations whereby actors, directly or indirectly, attempt to shift the levels of study, assessment, deliberation and decision-making authority to the level and scale which most suits them, that is, where they can exercise power more effectively” (Lebel et al., 2008: 129). The focus is, therefore, on processes amongst and between scales (Brenner, 2001) and scalar structurings of space through processes of hierarchisation (Bulkeley, 2005). This view conceptualises scale as the “product of material processes and power”, and is critical to moving beyond static views that restrict scale to conceptualisations of nested containers (Rangan and Kull, 2009: 30). It incorporates the ideas not only of struggle and transformation as strategic acts initiated for control over nature, but of a strategic re-organisation of scales as resistance to the distribution of power because these configurations always benefit some, whilst disadvantaging others (Swyngedouw

and Heynen, 2003). Examining the political agendas of those that pursue and/or gain from such strategies can elucidate hidden politics of CBNRM (Zulu, 2009).

3. Study setting, data and methods

This paper draws on research findings from two examples of wildlife and forestry CBNRM in Tanzania. I spent 11 months between March 2010 and June 2011 carrying out qualitative research, with local communities engaged in CBNRM, district, regional and national officials and Non-Governmental Organisation staff. The data presented in this paper is based on multiple methods, including semi-structured interviews (totalling 110) focus groups (17), participatory activities (community mapping, wealth ranking and process mapping) and participant observation carried out within these case studies. At the international and national levels, interview respondents were identified using a snowball technique from an initial set of repeat interviews with international conservation practitioners who had been involved with the case study projects. Relevant ministerial respondents and staff from non-governmental organisations were also identified through policy document analysis. At the village level, interviews and focus groups with members of the relevant committees were completed first, and used to purposively sample groups and individuals within the communities for further interviews, focus groups and participatory activities. Repeat interviews and focus groups were carried out in seven cases.

This research was based in the Southern Highlands region of Tanzania. The study area falls within the region of Iringa, and specifically the district of Iringa Rural (see Fig. 1 for details of the study setting).

CBNRM in the forestry and wildlife sectors of Tanzania was first introduced by donor-funded projects in the late 1980s. In the case of the examples used here, a community-based wildlife project, funded by the Overseas Development Association began in 1992 (see Hartley, 1997), whilst the forestry project began as a DANIDA-funded project in 1999 (see MEMA, 2001). Both these examples have now transitioned through to implementing Tanzania's nation-wide policy of CBNRM through Wildlife Management Areas (WMAs) and Community-Based Forest Management (CBFM) respectively (URT, 1998a, 1998b). Whilst these policies were both introduced in 1998, they developed separately and are overseen by different areas within the Ministry of Natural Resources and Tourism (the Forestry and Beekeeping Division for CBFM and the Wildlife Division for WMAs), they share the same central objectives of CBNRM: The devolution of rights to the local level for natural resource management; the development of community-level institutions to implement this management; and the provision of economic incentives for conservation and sustainable management at the local level (Adams and Hulme, 2001a).

These cases discussed in this paper were selected for research on the basis of their location within the same administrative district, under the responsibility of the same district authorities. The examples also provide an excellent comparison of CBNRM between Tanzania's wildlife and forestry sectors due to their similar timescales of project history and donor-funded stages. Finally, these cases also represent relatively undiscussed examples of CBNRM initiatives within Tanzania.

The WMA discussed here is called MBOMIPA, and is located on the Southeastern border of Ruaha National Park. The area gazetted as a WMA covers approximately 775 km² and is located around 130 km from the main regional town, Iringa. MBOMIPA is a collaboration between 21 participating villages, and my research worked across these villages, and also focused on one village, Makifu, for in-depth investigations. Makifu was selected for in-depth research

following a preliminary survey of the 21 participating villages, which highlighted the village's strategic position within the political dynamic of the WMA. The WMA is managed by an Authorised Association, made up of two elected representatives from each of the participating villages and internally-elected leadership committees.

The CBFM example is drawn from a group of five villages that took part in the DANIDA Natural Woodlands Management Project, which are located around 20 km from Iringa town, with in-depth research carried out in one village, Kiwere. The area of forest in Kiwere gazetted as a Village Land Forest Reserve totals 5 km² and is called Kidundakiyave. The forest is managed by a Village Natural Resources Committee (VNRC), which is elected from within the village community. Kiwere was selected for in-depth research following a preliminary survey of the five villages. This selection was made on the basis of the activity of the VNRC and the revenues that had been collected from CBFM (Kiwere is an example of an active VNRC with visible management of the forest and revenue collected that is a comparable amount to that received by an MBOMIPA village).

4. Contrasting scalar configurations and power dynamics

The initiation of WMAs and CBFM in Tanzania is intrinsically connected to the devolution of power away from the national/ministerial levels and towards the village level, and has brought about large shifts in the politics of natural resource management and power in terms of their management. Whilst this has been a topic of much discussion, commonly focused on the inadequacies of this devolution (e.g. Nelson and Blomley, 2010; Nelson, 2007; Zacharia and Kaihula, 2001; Shauri, 1999), the focus of this paper contributes to the politics of this devolution by outlining the scalar configurations set out in policy, and the reality of the struggles taking place around these. The wildlife sector particularly has been the focus of much discussion around the competing interests of different stakeholders with regards to power devolution, including the government, the private sector (especially tourist hunting and safari operators), WMA Authorised Associations and non-governmental organisations (see Baldus and Cauldwell, 2004; Leader-Williams et al., 2009). Similarly, the likenesses and distinctions between CBNRM in Tanzania's wildlife and forestry sectors, and the significance of power dynamics to the governance systems that have emerged in policy have been previously discussed (Nelson and Blomley, 2010). The aim here is not to go over these areas, but to elaborate on these discussions by examining the devolution of power in WMAs and CBFM in terms of the social construction of scale and scalar configurations of power. Secondly, I am particularly interested in drawing on Marston's (2000) point that these configurations are a particular framing of reality, and how this empowers some but excludes others.

The scalar configuration of power in both WMA and CBFM policy both set out natural resource governance within a hierarchy of administrative, bureaucratic levels that appears similar to the ladder analogy of scalar hierarchy, with the local level sitting within a broader regional level, itself within a national level etc. (see Fig. 2). The devolution of power within both sectors (however complex and flawed this may be), is signalled by an advisory role afforded to the ministerial levels in both forestry and wildlife and the daily management responsibilities in both CBFM and WMAs being placed in the hands of individuals elected from within participating communities. Between the WMA and CBFM systems, however, the principal governing institutions and fulcrum of power have been devolved in distinct ways (see also Nelson and Blomley, 2010 and Humphries, 2013), and CBNRM governance effectively scales power in natural resource management to

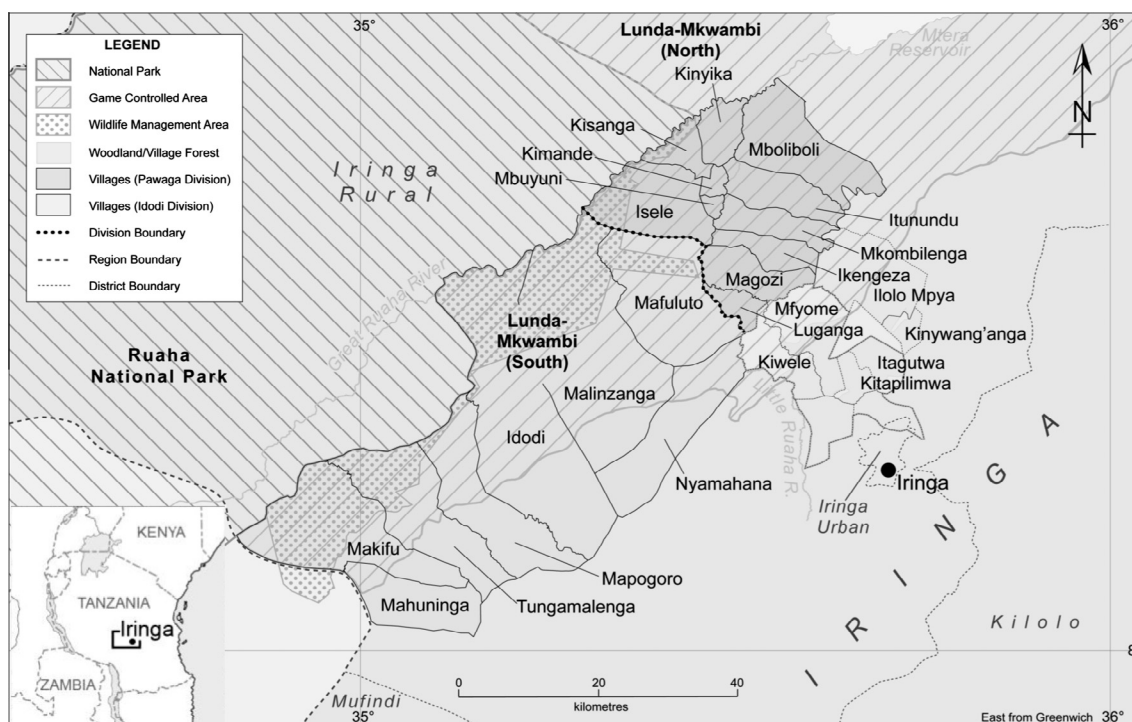


Fig. 1. Map of study setting showing the villages participating in the MBOMIPA Wildlife Management Area and Community Based Forest Management within the study area.

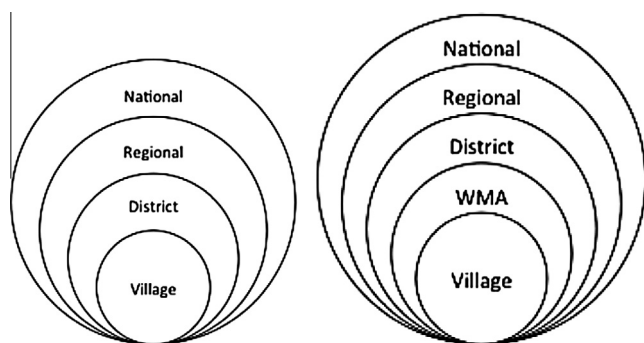


Fig. 2. Containerised visions of scalar configurations for CBFM (left) and WMAs (right) in Tanzania.

different levels. The institutional structure of CBFM involves the devolution of power to an existing institution, the VNRC, nested within the Village Council structure. Conversely, the WMA governance system involves the injection of an entirely new organisation (the Authorised Association) into the system of local governance, and simultaneously includes the creation of a new level of wildlife governance (the inter-village level), which operates across the participating villages rather than at the village level. The roles and responsibilities of existing institutions, including the Village Council and District Authorities, with regards to the area gazetted as a WMA are significantly altered by the creation of this new level and the Authorised Association, which is located there. A new level of CBNRM governance, operating across villages and running parallel to the existing systems of local governance, is therefore created in WMAs.

The reality of natural resource governance, however, is of course much more complicated than a simple ladder of nested spatial and operational containers, and the configurations of power in both CBFM and WMAs are better conceptualised as a multifarious web of relations and responsibilities. Figs. 3 and 4 illustrate the

complexity of these relationships. Examining the governance systems for both WMAs and CBFM in Tanzania in terms of the scalar configurations clearly highlights the tangled nature of the reality of these processes. WMA and CBFM processes take place within governance systems that are not only multi-level but consist of multiple organisations operating within a web of cross and multi-scale relationships. Furthermore, these relationships and processes are not simply nested and working sequentially and hierarchically (the village level feeding into the district level etc.). Instead, the scalar configurations set out in Figs. 3 and 4 reveal a tangled hierarchy, as Bulkeley (2005) describes.

The messy reality of these scalar configurations, in contrast to the neat ladder concept, was clearly evident in the changing powers, status and responsibilities of different stakeholder groups across multiple levels, and the tensions this had caused. The governance structures and processes set out for both CBFM and WMAs set up a range of altered power dynamics, and patterns of winners and losers across the different organisations and social groups involved. The way power was scaled in both cases played a central part in organising tensions and conflicts that were evident in both case studies.

Within CBFM, this was most clearly visible through the altered relationship between the VNRC and the Village Council, whereby the implementation of CBFM empowered the VNRC and handed responsibilities for potentially large sums of revenue to this committee, which forms part of the village government. The role of the Village Council, the top institution of village-level government, became one of supervision of the VNRC and its management of the forest, rather than direct responsibility or decision-making power regarding the area of land gazetted as a Village Land Forest Reserve and the revenue it generates.

In the MBOMIPA case study, the introduction of the new Authorised Association for wildlife management created a new inter-village level of wildlife governance, and re-scaled governance processes with similar impacts on the power and role of the Village Councils. This was seen by some as threatening the authority of the

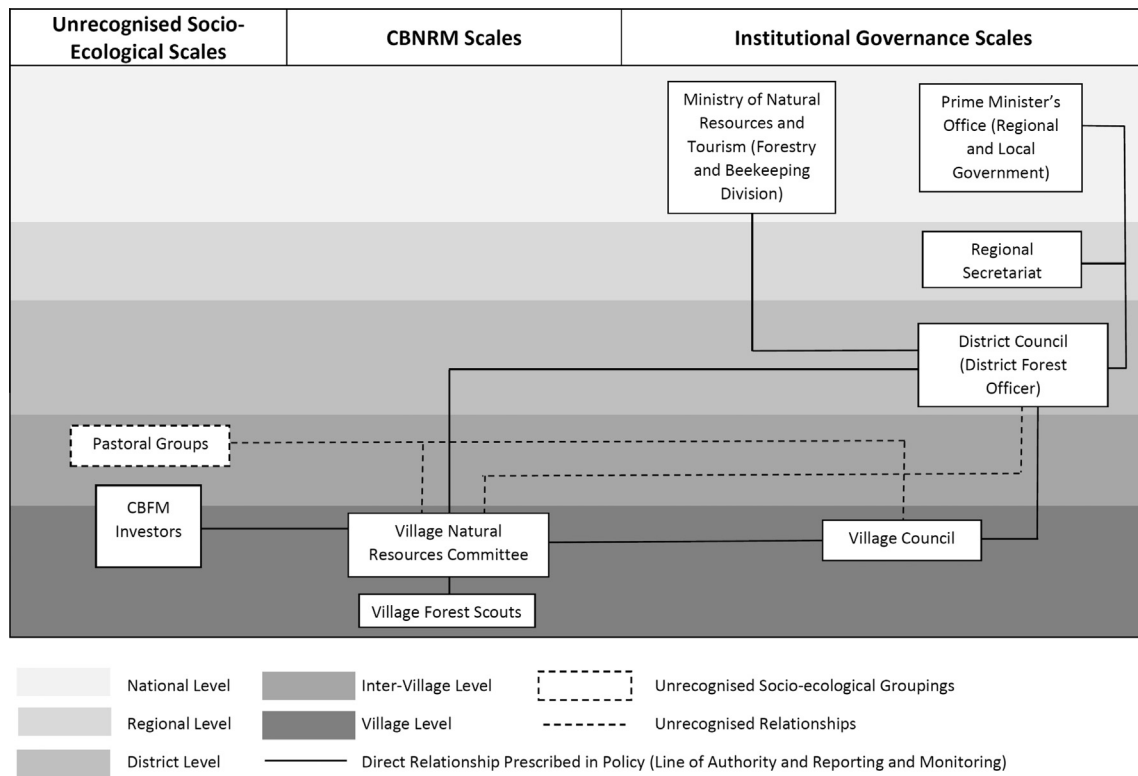


Fig. 3. Scalar landscape of CBFM in Kiwere including unrecognised socio-ecological scales.

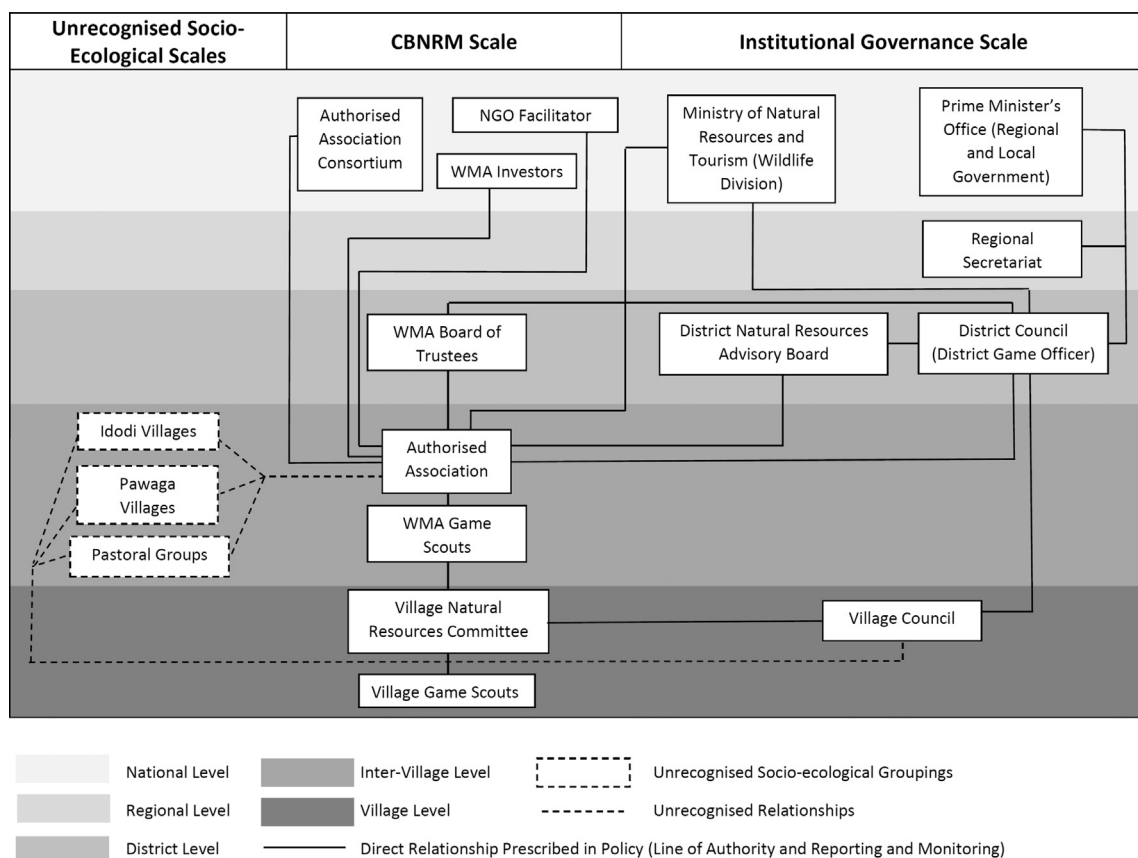


Fig. 4. Scalar Landscape in the MBOMIPA WMA including unrecognised socio-ecological scales.

Village Council, which generated tensions between its members and elected Authorised Association Representatives. One Village Chairman within a MBOMIPA village voiced this tension over the hierarchy of administrative power by asserting the supreme authority of the Village Council over the Authorised Association, and threatening that if the council disagrees with the decisions of the Authorised Association “*we would first change the MBOMIPA Representatives from our village, then break the Authorised Association Committees, then go after the MBOMIPA Chairman. We would not wait for elections, we would chase them away*” (Interview, 2010). This threat from the Village Chairman highlights the power struggle that was taking place between the long established Village Council and the newly introduced Authorised Association that grew out of members of the former’s frustration that they held no decision-making power over the WMA, and had no control over the financial management of the WMA. The introduction of the Authorised Association for the WMA had effectively removed areas of land from the Village Council’s control, whilst at the same time introducing an opportunity to increase village revenues from wildlife-related activities, but without giving the Village Council responsibility or influence over this opportunity. The Chairman’s assertion that they would not wait for elections emphasises their strong reaction to the shifting landscape of power, and a response of not recognising the validity of the new configuration of power by refusing to adhere to the governance systems created for the WMA. The Chairman was re-asserting the village level, and the Village Council as a supreme authority, and challenging the creation of the WMA level.

In both cases, as I discuss in the next sections, the re-scaling of governance reconfigured power dynamics at the local level, and in more complex ways than simply creating tensions between the state and local levels. New patterns of winners and losers and the empowered emerged as a result, and these changes were a catalyst for conflict and strategies by actors from both the Village Council and the District Authorities to re-scale CBNRM governance in ways that favoured their interests.

5. The social construction of scale: framings, alternatives and material consequences

The details of the devolution of power in WMAs and CBFM discussed in Section 4 not only produce the governance system, and its rules, regulations and responsibilities of different actors, but emphasise the socially constructed nature of CBNRM as part of a hierarchy of operational scales leading up to the national government. This sets natural resource governance in WMAs and CBFM in a frame of administrative and bureaucratic systems that reifies the power structure of national government, and simultaneously serves to de-legitimise alternative framings of these social spaces. It is already clear that this process of framing is political, and generates tension. Here, I discuss the material consequences of these framings alongside two examples of alternative understandings that have either been scaled out of natural resource governance in WMAs and CBFM, or have emerged in processes of the social construction of scale in response to the initiation of CBNRM. These examples further highlight the important inequalities that emerge from the scalar landscape, producing winners and losers in CBNRM at the local level.

First, both the example of CBFM from Kiwere and the MBOMIPA WMA showed that the scalar configuration of power put forward in national policy leaves little space (socially or ecologically) for groups that do not use the landscape in territorial units that match village, WMA or CBFM boundaries. Pastoral groups, of which there are sizeable populations of Il-Parakuyu Maasai and smaller numbers of Barabaig and Sukuma livestock herders that have lived

in this area since the 1950s (Walsh, 1995), are not integrated into the governance system (only one member of the village authorities interviewed, a CBFM forest guard, identified as part of a pastoral community) or the configuration of power for WMAs or CBFM.

The relationship between pastoral groups and CBNRM initiatives (and nature conservation more widely in Tanzania) is complex and often acrimonious. Tanzania has a long history of evictions of pastoral groups (see Brockington, 2008; Sachedina, 2008) and strong narratives blaming pastoralists for environmental degradation relating to grazing of cattle, and for rule-breaking in CBFM and WMAs are common (Nelson et al., 2009; Homewood et al., 2009). The frustration of pastoral groups over their lack of recognition by the national government in Tanzania, their exclusion from CBNRM governance and ensuing conflicts over land, access and natural resources use is well-documented (see Goldman, 2003; Patinkin, 2013; Smith, 2014). This was well articulated in these case studies, with a member of a pastoral community living within the WMA describing how its designation had drastically diminished the area of land available for grazing, and the new rules of the WMA left them with insufficient area, forcing them to “*either break the law or watch our cattle starve*” (Interview with Maasai community member, 2011). Similarly, in the Kiwere example, the creation of grazing zones in the management plan for the forest left the resident Maasai population feeling they did not have sufficient space to feed their livestock, and respondents described how this left them with no choice but to accept that they would have to pay fines for using restricted zones (Focus group with Maasai community members, 2011).

In terms of the politics of scaling, these groups, particularly those that move seasonally, use the landscape in different ways that do not necessarily coincide socially or environmentally (in terms of spatial extent) with the strict compartmentalisation of land for different uses according to WMA and CBFM management plans. The social identity of pastoral groups is one that places them outside of one particular village (even when these groups had settled, this was distant from the main village and regarded by the community as socially somewhat separate), and their transitory use of a large area of the landscape represents a scalar mismatch with the governance system for the WMA and CBFM, which enable particular areas of village land to be set aside for livestock grazing, but restrict access to the larger part of the WMA or forest area under CBFM. There is effectively no room for pastoral members of the community, both practically in terms of access to land for grazing, and in terms of the configuration of governance which cannot accommodate their alternative framings and use of the landscape.

Second, the initiation of WMA governance focused around the new, inter-village level, at which the Authorised Association operates, fails to recognise existing divisions, both ecological and socio-political between villages. The 21 villages that participate in MBOMIPA are located within two administrative divisions (nine villages within Idodi and 12 within Pawaga; see Fig. 1) and the boundary between these geographical areas marks significant social and ecological differences. Furthermore, these areas have been historically quite isolated from each other with few transport connections between them.¹ These areas are distinct in terms of socio-ecological space, related to differences in: topography, climate and ecology (Pawaga is located at a lower elevation, much drier and is an acacia-dominated landscape, whereas higher rainfall and lower elevations in Idodi create a more mixed acacia-miombo landscape); agricultural and livestock practices (livestock herding is a much more significant contribution to livelihoods in Pawaga, where

¹ At the time of fieldwork, a road connecting Idodi and Pawaga was under construction.

agriculture is more marginal, and there are larger pastoral populations here than in Idodi); socio-economic profile (the villages located in the division of Idodi are generally wealthier and have more services); and relationship with wildlife management (whilst all villages are located close to Ruaha National Park, the villages in Idodi division have witnessed far greater development for tourism as they are connected to the main road leading to the park). These disparities and divisions between the villages of Idodi and Pawaga generate distinct contexts of WMA management with different impacts of wildlife management, pressures on land use and priorities for WMA management. Despite these distinctions and scalar boundaries, the villages of MBOMIPA are called to work together and make decisions in the interest of all villages and sustainable wildlife management. The scalar boundaries between these sets of villages influence WMA priorities for management, but the scalar configuration constructed for the WMA does not accommodate these contrasts.

During fieldwork it was clear that a power dynamic, corresponding to the socio-ecological scale of the administrative division between the two sets of villages had emerged, leading to tension within the Authorised Association. Conflict centred on the fact that the governance system for the WMA, and the dominant framing within the scalar configuration of power, failed to acknowledge the existing socio-ecological divisions between these two areas, and was compounded by power dynamics within the Authorised Association, which saw Representatives from villages inside Idodi division dominating the positions of authority on the MBOMIPA leadership committee (in 2011 all three leadership positions were occupied, and had been for some time, by representatives from Idodi, whilst all three of their deputy positions were occupied by representatives from villages within Pawaga division). Members of the Authorised Association, and local residents frequently voiced their distaste at a widely held perception that villages within Idodi division dominated the WMA and the Authorised Association and that, due to the wider development of tourist infrastructure in Idodi division, these villages were far better off as a result of the WMA than those in Pawaga.

There is clearly a politics to the dominant framing of reality found in these case studies, and patterns of winners and losers that emerge from this. WMAs and CBFM were not initiated in socially empty spaces, but have implemented a framing of CBNRM into existing scalar landscapes and, as discussed here, often in ways that override existing sociospatial configurations. In both CBFM and the WMA this new framing benefits some, whilst proving detrimental to others; pastoral communities do not fit with the scalar configurations of either example of CBNRM, whilst new power configurations and governance systems have created conflict around pre-existing sociospatial boundaries and power dynamics in the MBOMIPA WMA. As I discuss in the next section, the alternative and unrecognised scalar framings (and particularly the social construction of scale involved), were important not just for the inequalities that emerged, but also for their important role in scalar politics as they became key mobilising issues for actors within the struggles taking place in the case studies. In the next section I explore the scalar politics in operation at the time of fieldwork and how the scalar configurations were being re-negotiated and contested, including the role of processes of social construction within the structuration of scale.

6. Scalar politics and struggles

In this section, I examine the ways in which the scalar configuration of power in both WMAs and CBFM was under negotiation and flux through strategies and struggle. I focus on the mobilisation of agency around the sociospatial aspects of power and interrogate the relationship between actors' agency and the scalar configuration of power.

The conflicts that were taking place in MBOMIPA and Kiwere represent important consequences of the ways power is devolved in CBNRM, as discussed in the previous sections, but there were also examples of scalar transformations, seen in the ways individuals and groups took advantage of, and created, opportunities to manipulate CBNRM and the scalar topographies of power (see [Smith, 1992](#)). This involved actors positioning themselves around these scalar configurations to both access and alter scales, and the generation of conflict as actors attempted to affect change. Conflicts within the two case studies were clearly distinct between the two cases, but mirrored the specificities of CBNRM scales in each case (conflict within CBFM was predominantly within the village level, where the VNRC was operationally located, whereas the conflicts in MBOMIPA were scaled to the inter-village level, where the Authorised Association operated). This signifies an important role for the scalar configurations of power set out in the WMA and CBFM in shaping the socio-spatial location of conflicts, which act as opportunities to renegotiate power, signalling the twin roles of structure and agency in the structuration of power.

[Figs. 3 and 4](#) outline the messy, contested scalar landscapes within the local level in the case studies. In contrast to the neat, bounded configuration envisaged in the nested hierarchy (see [Fig. 2](#)), they each show that the scale of CBNRM governance is made up of multiple groups of actors, representing different interests and additional framings that have been unrecognised in policy (e.g. the pastoral scale and administrative divisions with socio-ecological distinctions in MBOMIPA). These figures also demonstrate how the scalar landscape has been further transformed by sociospatial processes, including scale jumping and the social construction of scale, and, as I go on to discuss, these were driven by the politics of natural resource management in CBNRM.

In response to the shifting power dynamics resulting from the initiation of WMAs and CBFM, scalar transformations involving groups trying to create additional roles for themselves within the governance systems were evident. In the Kiwere CBFM example, the District Authorities had successfully enacted 'scale jumping' to transform CBFM governance and create a role for themselves in the election processes for the VNRC at the village level, despite no mandate to do so in the CBFM governance arrangements. The term scale jumping refers to the transformation of scalar formations through actors being able to use their social power to position themselves within another scale, thus resisting hegemonic structures ([Smith, 1992](#)). Both VNRC officials and local residents in Kiwere described the encroachment of district officials into electoral processes and decisions around the VNRC; the limited number of trained and experienced individuals within the village led to advice from the district authorities to ensure that these people remained in their positions within the VNRC (Interview with Kiwere Village Chairman, 2011). The scaling of district-level influence into VNRC electoral processes moved beyond this advice in some instances however, and was described by community members as preventing free elections from taking place because the district officials insisted that at least one quarter of the experienced committee members must remain on the committee, and when previous election results included an entirely new committee, the district refused to allow this (Interview with Kiwere Village Chairman, 2011; Focus Groups with tobacco farmers, 2011; see also [Green and Lund, 2014](#)).

Both case studies also included examples of the Village Council jumping scales in order to access decision-making and benefits from CBNRM. In Kiwere, the Village Council was engaged in a scalar strategy to counteract the newly empowered VNRC by re-shaping (jumping into) the scale of CBFM governance through creating a role for the Village Council in VNRC decision-making processes: The Kiwere Village Council had successfully argued that they should have a representative present at all VNRC meetings, to

observe and report back to the Village Council, and that the Village Council should take part in forest patrol activities to verify the activities of the VNRC and its management of the forest (Interview with Kiwere Village Chairman, 2011). The village council had no official authority to carry out either of these roles according to the governance system set out in CBFM policy, but its members had successfully re-negotiated CBFM governance and their role within it to be able to access this decision-making arena. An academic researcher described how the creation of the VNRC had “*revolutionised the politics of the villages*”, leading to conflict and power struggles between the Village Council and the VNRC as “*both want to have a say in resource use*” (Interview, 2010). It was observed in cases of CBFM around the country that the Village Council had “*tak[en] over the project because they want to collect the money for themselves*” (Interview with academic researcher, 2010).

Just as the scalar configuration of power set out in CBNRM policy signalled consequences in terms of the ways in which power was devolved, and which actors benefited from these configurations, the scalar struggles and renegotiations that have taken place around these configurations have had material consequences and led to adjustments in the CBNRM governance systems, and the patterns of winners and losers that are emerging from CBNRM.

In MBOMIPA, these scalar struggles by the Village Councils involved several participating villages initiating investment contracts with tourism enterprises, effectively re-scaling this responsibility away from the Authorised Association (enabled by law to enter into such investments to generate revenue for the WMA), and positioning themselves as actors within the national scale of tourism investment (see also Green and Adams, 2014). As a result of the governance arrangements for the WMA, the Village Council sits in an uneasy position with regards to authority and hierarchy with the Authorised Association. There is no official role or space for Village Council officials to participate in decision-making processes regarding investment contracts, and the financial benefits received by MBOMIPA from these investments are handed down to the village level from the Authorised Association. Through village-level investments, Village Councils sought to re-scale opportunities for investment and financial benefit from wildlife to the village level rather than the WMA. At the time of fieldwork, the Village Council from Makifu was negotiating with five private investors to set up camps on village land (Interview with Authorised Association Representative, 2011; participant observation at village meeting, 2011). These camps would be located on land owned by the village that bordered the Ruaha National Park, and the investors, who all represented tourist companies, would use them to expand their operations in and around the national park by providing lodging and game viewing facilities for their customers. Similar arrangements already existed in other MBOMIPA villages where tourist infrastructure pre-dated the WMA. The Village Council in Makifu sought to access decision-making and financial control over private companies and investment contracts for land within the WMA, but as one Authorised Association Representative described, this manipulation of the WMA governance system generated problems as “*village investors cause much conflict because people disagree over whether the money should go to the village or to MBOMIPA*” (Interview, 2011).

In both cases the scalar configuration of power set out altered the systems of power with respect to natural resource management, and altered the patterns of winners and losers with respect to wildlife and forest management and the ways that land within the CBNRM projects was used and managed by different groups. These new and amended structures of power not only shaped patterns of winners and losers but provided a locus for scalar politics and practices as actors sought to alter these structures to gain or regain control over natural resources and access the potential

benefits of CBNRM (see also Swyngedouw and Heynen, 2003). The agency of actors was spatialized in line with the structures of power present in the scalar configurations, lending support to Smith's (1992) assertion that scale and struggle are two sides of the same coin. In the cases discussed here, actors are engaged in processes of scalar struggle to reconfigure power in their own interests (for example by re-scaling WMA investment contracts to the village level), but the location of these conflicts within the tangled web of socioeconomic organisation is driven by the structures of power these set out (in the case of WMA investments, the scaling of power to the inter-village level and granting of power to the authorised association to negotiate investments, generated losers in the Village Council who felt alienated from WMA management, and used the WMAs own system of investment contracts to challenge the system in place).

7. Conclusions

This paper had adopted a scalar perspective to examine the politics of CBNRM in Tanzania, and the struggles and politics of natural resource management this involves. By integrating a process-based view of scale (focused on scale as frames of reality alongside the processes of struggle and transformation that surround these) with a political ecology approach that emphasises the central role of power dynamics and socio-political processes in natural resource management, the examples discussed in this paper add new insights into the way power is devolved in Tanzanian CBNRM, the patterns of winners and losers that result, and the political struggles that take place. By adopting a scalar lens, hidden politics of CBNRM have emerged in the political strategies adopted by actors to re-spatialise power and re-configure CBNRM governance.

Struggles and conflict, and the driving force of power in shaping these, is not a new topic in political ecology, but the examples discussed here highlight the importance of spatial aspects within the politics of natural resource management, and emphasise that the socio-politics and power dynamics of CBNRM are both shaped by and continually re-shaping the scalar configuration of power.

In line with Marston (2000), I have examined three key features of scale in these examples: the construction of scale as frames of reality, the material consequences associated with scalar configurations and the continual processes of struggle and scalar re-negotiation.

7.1. Frames of reality and material consequences

In line with the arguments made by Purcell and Brown (2005), the scalar shifts represented by the introduction of CBNRM in both the wildlife and forestry sectors of Tanzania heralded new configurations of power that represent specific frames of reality with regards to the role of local communities in natural resource management and the appropriate governance system to implement this.

The way power is scaled in Tanzania's policies of CBFM and WMAs is distinct and, importantly, a new level of natural resource governance, located at the inter-village level, is created in WMAs. In both WMAs and CBFM, however, the configuration of power is, in reality, much more complicated than a nested hierarchy. The reality of CBNRM governance represents a tangled hierarchy of power and relationships that are both inter and multi-scalar.

The scalar configurations in place represent frames of reality that involved shifting power dynamics which produced new sets of winners and losers and shifted authority and responsibility across a system of governance that spans multiple levels. The scalar framings implemented do not necessarily fit with existing socio-ecological scales, however, and further patterns of winners

and losers were found in unrecognised scales. The fate of pastoral groups in natural resource management, who found themselves scaled out of CBFM and WMAs, remains uncertain, but the examples from Kiwera and MBOMIPA suggest that, whilst alternative framings and scalar configurations lost out in the implementation of CBNRM, they did not disappear from the politics that surround it; unrecognised socio-ecological scales and pre-existing power dynamics served as important mobilising issues in the scalar politics that emerged, becoming driving forces in the struggles that took place. For example, the conflict between WMA villages that emerged out of the unrecognised socioeconomic scales that divides them is an excellent illustration of the hidden scalar politics that come into play in shaping the reality of CBNRM governance.

7.2. Struggle and renegotiation

The details of power devolution and the framings of reality introduced in the scalar configuration of power in CBFM and WMAs provided the impetus for actors and groups to try and renegotiate their role by adopting scalar processes, as witnessed with the scale jumping enacted by the Village Councils in both cases, and the work of the District Authorities in the CBFM example to position themselves and increase their role within the scale of forest governance. Struggles, conflict and attempts to re-organise the scalar configurations within CBNRM thus emerged in relation to the scalar configuration of power and centred on the levels and institutions where power was concentrated in each case.

A politics of scaling analysis of these struggles reveals an important structuration element of power and scale, in which they were shaped by both the structural configuration of power within each sector, alongside the agency of different actors across multiple levels (see [Leitner and Miller, 2007](#); [Bulkeley, 2005](#)). A structural component of the conflicts and struggles taking place was very clear, with the locus of struggle centred around a fulcrum of decision-making power in both case studies (the VNRC in CBFM and the Authorised Association in WMAs). Given the distinctions in power devolution and the governance systems in place between CBFM and WMAs, this points clearly to the same political processes of struggle expressed as a reflection of the scalar configuration of power; struggle and resistance to the configuration of power was present, but it was organised around these structures, both an attempt to shape them and simultaneously shaped by them. The role of agency in this structuration of power and scale becomes clear in the ways that actors then mobilised around this structure to challenge the configuration of power and to bring existing power dynamics into the governance systems for CBNRM. [Fraser \(2010: 335\)](#) summarises this neatly as the employment of “skills and agency amongst the structures of opportunity and constraint that constitute the politics of scale”.

This structuration, and the organisation of political strategies by actors around the configuration of power in place, is also indicated in the processes of scale jumping discussed here. Scale jumping is often assumed to take place in an ‘upward’ direction (adopting a somewhat containerised view of scales), whereas the examples here include instances of ‘downward’ jumping (for example by the District Authorities in the CBFM case), which indicates that the process of scalar renegotiation in jumping is driven by the specificities of how power is scaled. The agency of actors was spatialized according to these configurations of power, and actors were mobilised by political agendas of power and control over natural resources, generating strategies of scalar reconfiguration and re-hierarchisation around the structures in place (whether that involved upward or downward processes, the direction is irrelevant, the mobilisation around power is what is important).

It would be naïve to assume that such processes of struggle occur entirely in response to the scalar configuration of power, or

that scale can explain everything we need to know about power dynamics and the politics of natural resource management. The struggles over power that lay at the heart of conflicts and strategies in both cases were indicative of existing tensions and power dynamics within and amongst these village communities. The politics of scaling is clearly shaped in part by the scalar configuration of power set out in CBNRM, but the landscape of power this produces is implemented within an existing socio-political and socio-ecological landscape that already represents inequality and power differentials. As these examples highlight, the scalar configuration of power became a vehicle for renegotiation of existing power dynamics and conflicts, and this underlines [Fraser's \(2010\)](#) point that scalar practices links closely to the idea of scale as strategy ([Purcell and Brown, 2005](#)).

The conflict over power divisions between Idodi and Pawaga in the MBOMIPA example highlight how both unrecognised scales and long-standing power dynamics were brought into the politics of scaling as actors sought to break apart the scalar landscape and re-configure it around these alternatives. Human agency was thus again spatialised as a result of the scalar configuration of power in CBNRM, and represented a response and resistance to this configuration, the power dynamics that surrounded it and the opportunities this presented. Scale should be seen as discursively produced through the employment of framings of reality, but also continually contested by alternative framings and discursive strategies in the battle for power over the scalar landscape.

A political ecology of scaling approach helps us to identify the socio-politics of governance, and to see the spatial aspects of this. It also enables us to gain a more nuanced understanding of the political and power dynamics of CBNRM that political ecology has long focused on. The struggles and conflicts taking place in MBOMIPA and Kiwera are important aspects of the reality of CBNRM, and provide insight into the power dynamics taking place and how such interventions develop and change over time. Recognising these struggles as socio-spatial processes and strategies with power at their core, both in terms of a structure shaping the struggles and reaction to those power configurations, sheds new light on the politics and realities of natural resource management. The underlying driving force of power in the examples discussed here, and the organisation of struggle around the way power is devolved in CBNRM indicate that it is not a question of getting the scale of implementation correct to avoid these problems and complexities. Whilst the outcomes and success of CBNRM have been questioned in recent years (see discussion in [Büscher and Dressler, 2007](#)), analysis of the sociospatial politics involved suggests that, rather than poor implementation driving these complexities, they are an integral part of the messy reality of natural resource management that inescapably involves scalar configurations of power, and the dynamics that surround this ([Purcell and Brown, 2005](#)). The examples from Tanzanian CBNRM explored in this paper also highlight that this messy reality of scalar struggle is not just driven by the material interests of different actors attempting to break down or use the scalar configuration in their interest, but represent strategies to question and resist the power structures in place, the inequalities these represent and to assert alternative understandings of socio-ecological relationships and space ([Zulu, 2009](#); [Swyngedouw and Heynen, 2003](#)). Potentially, examining the politics and power dynamics of natural resource management using a political ecology of scaling provides an opportunity to predict the conflicts and struggles that will emerge, and potentially hinder objectives and change outcomes. Focusing on the political agenda and strategies of actors in response to the configuration of power (and keeping power and control over natural resources at the centre of this focus), and questioning who the winners and losers will be as a result, and how their agency will be spatialized, provides scope to identify the potential major conflicts and points of struggle.

The devolution of power in CBNRM is essentially scalar and inescapably political. It cannot avoid implementing a particular framing of reality that involves empowering and providing opportunities for some, whilst at the same time disadvantaging others. Its power dynamics are unavoidable, therefore, and result in material consequences for these groups. Its outcomes are not fixed, however, and the scalar configuration of power serves as a fulcrum for actors to negotiate these power dynamics, employing scalar strategies to renegotiate their position within the governance system and challenge the configurations of power in place.

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